

Vo Declaration Exhibit A

Exhibit 1

Sealed Version

Message

From: Iliyan Zarov [REDACTED@meta.com]
Sent: 11/20/2023 8:18:37 PM
To: Iliyan Zarov [REDACTED@meta.com]; Nikolay Bashlykov [REDACTED@meta.com]
Subject: Message summary [{"otherUserFbId":100083037918592,"threadFbId":null}]

Nikolay Bashlykov (11/20/2023 11:38:31 PST):

>hi Iliyan! Robert mentioned that you might have already the OpenWebMath dataset, could you point me to the path?
 ><https://arxiv.org/pdf/2310.06786.pdf>

Iliyan Zarov (11/20/2023 11:44:27 PST):

>hi Nikolay, sure, it's here - /fsx-llm/[REDACTED]

Nikolay Bashlykov (11/20/2023 11:46:08 PST):

>@silent amaxing, thx! did you run any experiments on it already?

Iliyan Zarov (11/20/2023 11:47:25 PST):

>Yep, I'm using it for a training/finetuning run I'm doing for reasoning, gives a pretty decent boost on stuff like gsm8k and math

Nikolay Bashlykov (11/20/2023 11:48:38 PST):

>cool! do you have any documents to read on that?

Nikolay Bashlykov (11/20/2023 11:49:26 PST):

>also do you know any other good math/reasoning datasets I should look into? or actually any other non-llama-2 datasets that you think are valuable?

Iliyan Zarov (11/20/2023 11:54:48 PST):

>nothing detailed, I added it after I started training so I did some limited ablations to check that helps over and above libgen and the galactica datasets and it seems to do

Iliyan Zarov (11/20/2023 11:55:09 PST):

>well, libgen and galatica datasets are great but I guess you're fully aware of these 😊

Nikolay Bashlykov (11/20/2023 11:55:50 PST):

>yep 😊

Iliyan Zarov (11/20/2023 11:56:15 PST):

>I'll be trying adding some synthetic data as well sampled from the improved model, but it's still early days on that

Nikolay Bashlykov (11/20/2023 11:56:36 PST):

>that's interesting!

Nikolay Bashlykov (11/20/2023 11:57:10 PST):

>btw, is it the whole dataset? it's like 27G, but I thought 15B tokens should be ~60G

Iliyan Zarov (11/20/2023 12:01:27 PST):

>it should be the whole thing yeah - I got it off hugging face. They report 6.32M rows of data and that's how many there are in the files total

Iliyan Zarov (11/20/2023 12:02:29 PST):

>do you have any other math/reasoning datasets you've been considering?

Nikolay Bashlykov (11/20/2023 12:04:36 PST):

>not really, but if you haven't talked to Viktor Kerkez, you can ask him - probably he has smth on top of the galactica

Iliyan Zarov (11/20/2023 12:05:46 PST):

>ah yes thanks, I'm in touch with him, he's been refreshing/expanding on the galactica corpus

Nikolay Bashlykov (11/20/2023 12:08:11 PST):

>also I updated the libgen dataset - basically removed some of the artifacts and outliers. I still need to move it to S3, but it's already on RSC:

>
 >fiction: [REDACTED]libgen/fiction/fiction_en_20231120

>
 >scitech: [REDACTED]libgen/scitech/scitech_en_20231120

>
 >scimag: [REDACTED]libgen/scimag/scimag_20231120

Iliyan Zarov (11/20/2023 12:10:02 PST):

>oh great! what did you remove? I took the scitech version from you and I think I only removed some of the last pages with some heuristics as there were lots of indices, references, etc

Nikolay Bashlykov (11/20/2023 12:15:18 PST):

>basically some bad docs (based on token distribution), repetitions, copyright, emails:

[https://docs.google.com/document/\[REDACTED\]](https://docs.google.com/document/[REDACTED])

Iliyan Zarov (11/20/2023 12:16:46 PST):

>Awesome! I'll try out the modified version. Are you copying it to s3/AWS? If not I'll prob copy scitech myself tomorrow

Nikolay Bashlykov (11/20/2023 12:18:30 PST):

>yep, copying it now, will update you once done

Nikolay Bashlykov (11/20/2023 12:18:37 PST):

>to S3